

**RICOH**

# **RICOH WG-20**



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Thank you for purchasing this RICOH WG-20 Digital Camera.

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This camera is waterproof, dustproof, and shockproof, as shown below, so you can use it in a wide range of outdoor activities.

**Waterproof/dustproof:** JIS grade 8 waterproof and grade 6 dustproof (IP68)

**Shockproof:** Satisfies our drop test (1.5 m height onto a 5 cm thick plywood surface) complying with MIL-Standard 810F Method 516.5-Shock testing.

\* Waterproof performance is not guaranteed if the camera is exposed to impact such as being dropped or hit.

\* The camera is not guaranteed to be free of trouble or damage under every condition.

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### **To users of this camera**

- Do not use or store this device in the vicinity of equipment that generates strong electromagnetic radiation or magnetic fields. Strong static charges or the magnetic fields produced by equipment such as radio transmitters could interfere with the monitor, damage the stored data, or affect the product's internal circuitry and cause camera misoperation.
- The liquid crystal panel used in the display is manufactured using extremely high precision technology. Although the level of functioning pixels is 99.99% or better, you should be aware that 0.01% or fewer of the pixels may not illuminate or may illuminate when they should not. However, this has no effect on the recorded image.
- A band of light may appear on the display if the camera is aimed at a bright subject. This is known as a smear, but it is not a malfunction.
- There is a possibility that the illustrations and the display screen in this manual are different from the actual product.
- In this manual, SD Memory Cards, SDHC Memory Cards and SDXC Memory Cards are referred to as SD Memory Cards.
- In this manual, the generic term "computer(s)" refers to either a Windows PC or a Macintosh hereafter.
- In this manual, the term "battery(ies)" refers to any type of batteries used for this camera and accessories.

# Using Your Camera Safely

We have paid close attention to the safety of this product. When using this product, we request your special attention regarding items marked with the following symbols.



## Warning

This symbol indicates that violating this item could cause serious personal injuries.



## Caution

This symbol indicates that violating this item could cause minor or medium personal injuries, or loss of property.

## About the Camera

### ⚠ Warning

- Do not attempt to take the camera apart or modify the camera. High voltages are present within the camera, and there is a danger of electric shock if the camera is taken apart.
- If the inside of the camera should become exposed as a result of, for example, the camera being dropped, please do not under any circumstances touch such exposed portions, as there is a danger of receiving an electric shock.
- Wrapping the strap of the camera around your neck is also dangerous. Please take care that small children do not hang the strap around their necks.
- If any irregularities occur during use, such as smoke or a strange odor, stop use immediately, remove the battery or the AC adapter, and contact your nearest service center. Continuing to use the product can cause a fire or electric shock.

### ⚠ Caution

- Do not place your finger on the flash when it is discharging as there is a risk of burns.
- Do not discharge the flash while it is touching your clothing as there is a risk of discoloring.
- Some portions of the camera heat up during use, so please take care, as there is a risk of low temperature burns if such portions are held for long periods of time.
- Should the LCD be damaged, be careful of glass fragments. Also, be careful not to allow the liquid crystal to get on your skin, in your eyes, or in your mouth.

- Depending on your individual factors or physical condition, the use of the camera may cause itching, rashes or blisters. In case of any abnormality, stop using the camera and get medical attention immediately.

## About the Battery Charger and the AC Adapter

### Warning

- Always use the battery charger and AC adapter exclusively developed for this product, with the specified power and voltage. Using a battery charger or AC adapter not exclusive to this product, or using the exclusive battery charger or AC adapter with an unspecified power or voltage can cause a fire, electric shock, or camera breakdown. The specified voltage is 100-240V AC.
- Do not disassemble or modify the product. This can cause a fire or electric shock.
- If the generation of smoke or strange odor from the product or other abnormality occurs, immediately discontinue its use and consult your nearest service center. Continuing to use the product can cause a fire or electric shock.
- If water should happen to get inside the product, consult your nearest service center. Continuing to use the product can cause a fire or electric shock.
- If a thunder storm should occur while using the battery charger or AC adapter, unplug the AC plug cord and discontinue use. Continuing to use the product can cause damage to the equipment, fire, or electric shock.
- Wipe off the plug of the AC plug cord if it becomes covered with dust. Dust on the plug may cause a fire.

### Caution

- Do not place heavy objects on the AC plug cord, allow heavy objects to drop onto it or allow the AC plug cord to become damaged due to excessive bending. If the AC plug cord becomes damaged, consult your nearest service center.
- Do not short or touch the output terminals of the product while it is still plugged in.
- Do not plug in the AC plug cord with wet hands. This can cause an electric shock.
- Do not subject the product to strong impacts or allow it to drop onto a hard surface. This can cause a malfunction.

- Do not use the battery charger to charge a battery other than a rechargeable lithium-ion battery D-LI92. This can cause overheating, explosion, or battery charger failure.
- To reduce the risk of hazards, use only a CSA/UL certified power supply cord set, cord is Type SPT-2 or heavier, minimum NO.18 AWG copper, one end with a molded-on male attachment plug cap (with a specified NEMA configuration), and the other is provided with a molded-on female connector body (with a specified IEC nonindustrial type configuration) or the equivalent.

## About the Battery

### **Warning**

- Be sure to store the battery out of the reach of small children. Placing it in their mouths may cause an electric shock.
- If any leakage from the battery should come in contact with your eyes, it may cause a loss of sight. Flush your eyes with clean water and get medical attention immediately. Do not rub them.

### **Caution**

- Only use the specified battery with this camera. Use of other batteries may cause an explosion or fire.
- Do not disassemble the battery. Disassembling the battery may cause an explosion or leakage.
- Remove the battery from the camera immediately if it becomes hot or begins to smoke. Be careful not to burn yourself during removal.
- Keep wires, hairpins, and other metal objects away from the + and - contacts of the battery.
- Do not short the battery or dispose of the battery in fire. This can cause an explosion or fire.
- If any leakage from the battery should come in contact with skin or clothes, it may cause irritation to the skin. Wash the affected areas thoroughly with water.
- Precautions for D-LI92 Battery Usage:  
**BATTERY MAY EXPLODE OR FIRE IF MISTREATED.**
  - DO NOT DISASSEMBLE OR DISPOSE OF IN FIRE.
  - DO NOT CHARGE EXCEPT SPECIFIED CHARGING CONDITION.
  - DO NOT HEAT ABOVE 140°F / 60°C, OR SHORT CIRCUIT.
  - DO NOT CRUSH OR MODIFY.

## **Keep the Camera and Accessories Out of the Reach of Small Children**

### **⚠ Warning**

- Be sure to keep the camera and its accessories out of the reach of small children.
  1. Injuries may result from the product falling or from unexpected movement.
  2. Suffocation may result from wrapping the strap around the neck.
  3. Small accessories such as battery or an SD Memory Card may be swallowed. Seek medical attention immediately if an accessory is accidentally swallowed.

# Care to be Taken During Handling

## Before Starting Use

- When traveling, take the Worldwide Service Network listing that is included in the package. This will be useful if you experience problems abroad.
- When the camera has not been used for a long time, confirm that it is still working properly, particularly prior to taking important pictures (such as at a wedding or when traveling). Contents of the recording cannot be guaranteed if recording, playback or transferring your data to a computer, etc. is not possible due to a malfunction of your camera or recording media (SD Memory Card), etc.
- The lens on this camera is not interchangeable. The lens is not removable.

## About the Battery and Battery Charger

- Storing the battery fully charged may decrease the battery performance. Avoid storing it especially in high temperatures.
- If the battery is left inserted and the camera is not used for a long time, the battery will over-discharge and shorten the battery's service life.
- Charging the battery a day before use or on the day of use is recommended.
- The AC plug cord supplied with the camera is for exclusive use with the battery charger D-BC92. Do not use it with any other equipment.

## Cautions when Carrying and Using the Camera

- Hot and humid places should be avoided. Particular care should be taken regarding vehicles, which can become very hot inside.
- Ensure that the camera is not subjected to substantial vibrations, shocks, or pressure as this may cause damage, malfunction, or a loss in waterproof performance. Place the camera on a cushion for protection when the camera is subjected to the vibrations of a motorbike, car, ship, etc. If the camera is subjected to substantial vibrations, shocks, or pressure, take your camera to your nearest service center and have it checked.
- The temperature range in which the camera can be used is -10°C to 40°C (14°F to 104°F).
- The liquid crystal display will become black at high temperatures but will return to normal at normal temperatures.
- The response speed of the liquid crystal display becomes slow at low temperatures. This is due to the properties of the liquid crystal and is not a malfunction.

- If the camera is subjected to rapid temperature changes, condensation may form on the inside and outside of the camera. Therefore put the camera in a bag or plastic bag and take the camera out when the difference in temperature has subsided.
- Avoid contact with garbage, mud, sand, dust, water, toxic gases, or salts. These could cause the camera to breakdown. Wipe the camera to dry off any rain or water drops.
- Please do not press forcefully on the display. This could cause it to break or malfunction.
- Be careful not to sit down with the camera in your back pocket as this may damage the exterior of the camera or the display.
- When using a tripod with the camera, be careful not to overtighten the screw in the tripod socket on the camera.

## **About Repairs**

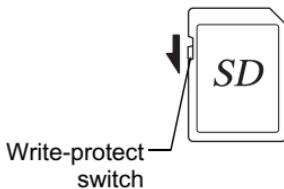
- Do not clean the product with organic solvents such as thinner, alcohol or benzene.
- Use a lens brush to remove dust accumulated on the lens. Never use a spray blower for cleaning as it may damage the lens.

## **About Storage**

- Avoid storing the camera where pesticides and chemicals are handled. Remove the camera from its case and store it in a well-ventilated place to prevent the camera from becoming moldy during storage.
- Avoid using or storing the camera where it may be exposed to static electricity or electrical interference.
- Avoid using or storing the camera in direct sunlight or in locations where it may be exposed to rapid changes in temperature or to condensation.
- Periodic checks are recommended every 1 to 2 years in order to maintain high performance.

## Others

- The SD Memory Card is equipped with a write-protect switch. Setting the switch to LOCK prevents new data from being recorded on the card, the stored data from being deleted, and the card from being formatted by the camera or computer.  
☞ appears on the display when the card is write-protected.
- Care should be taken when removing the SD Memory Card immediately after using the camera, as the card may be hot.
- Keep the battery/card cover closed and do not remove the SD Memory Card or turn the camera off while the data is being played back or saved to the card, or the camera is connected to a computer with the USB cable, as this may cause the data to be lost or the card to be damaged.
- Do not bend the SD Memory Card or subject it to violent impact. Keep it away from water and store away from high temperature.
- Do not remove the SD Memory Card during formatting as this may damage the card and render it unusable.
- The data on the SD Memory Card may be lost in the following circumstances. We do not accept any liability for data that is deleted
  - when the SD Memory Card is mishandled by the user.
  - when the SD Memory Card is exposed to static electricity or electrical interference.
  - when the SD Memory Card has not been used for a long time.
  - when the SD Memory Card is ejected or the batteries are removed while the card is being accessed.
- If it is not used for a long time, the data on the card may become unreadable. Be sure to regularly make a backup of important data on a computer.
- Be sure to format SD Memory Cards that are unused or have been used on another camera.
- Please note that deleting data, or formatting the SD Memory Cards or the built-in memory does not completely erase the original data. Deleted files can sometimes be recovered using commercially available software. It is user's responsibility to ensure the privacy of such data.



## Checking the Contents of the Package

**Check that your camera comes complete with the items listed below.**

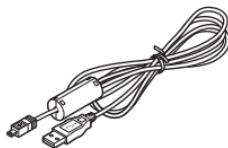
Camera (RICOH WG-20)



Software (CD-ROM) S-SW147



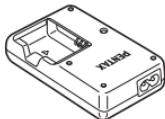
USB cable (I-USB7)



Rechargeable lithium-ion battery (D-LI92)



Battery charger (D-BC92)



AC plug cord

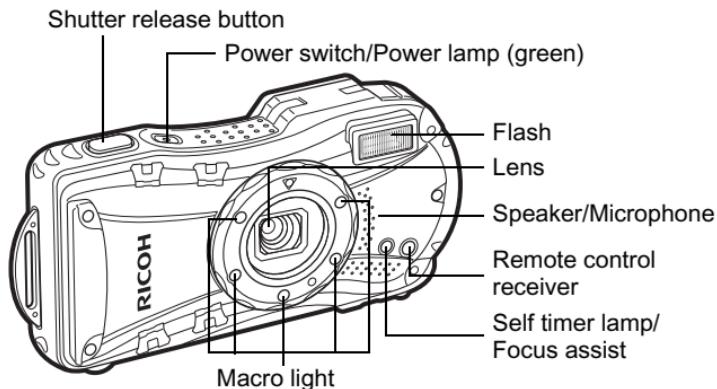


Strap (O-ST104)  
 Operating Manual

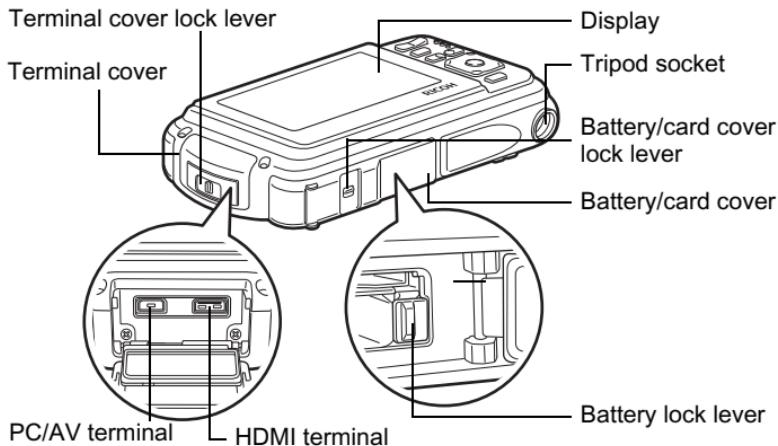
Macro stand (O-MS1)  
 Quick Guide (this guide)

# Names of Parts and Monitor Indicators

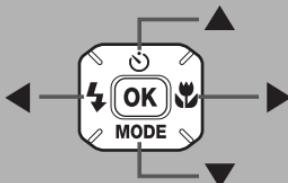
## Front



## Back



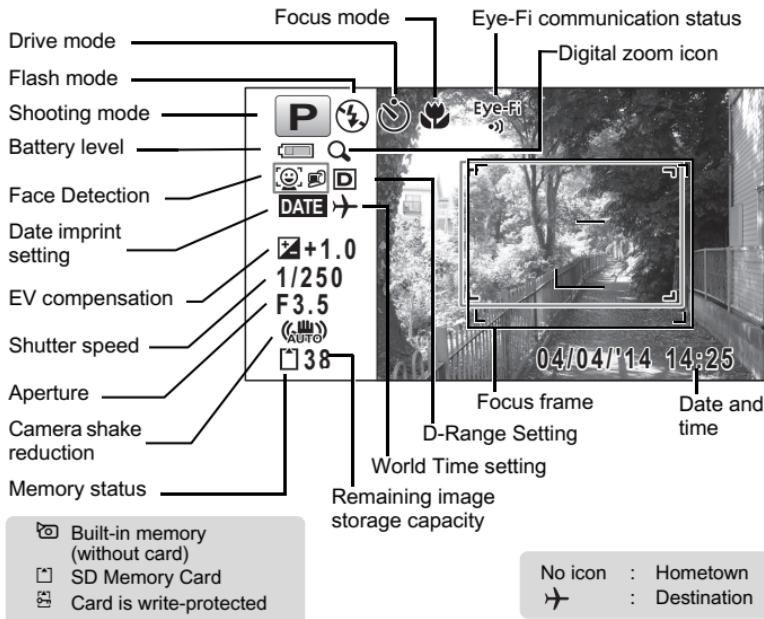
In this Quick Guide, the arrow keys to be pressed are indicated as shown on the right.



## ●Monitor Indicators

Following indicators are displayed in the still picture capture mode.

### Normal display in the Still Picture Capture Mode



## Battery Level Indicator

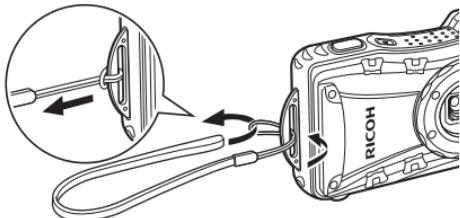
You can check the battery level by the  indicator on the display.

| Screen Display   | Battery Status                                   |
|--|--|
|  (green)  | Adequate power remains.                          |
|  (green)  | Battery is running low.                          |
|  (yellow) | Battery is running very low.                     |
|  (red)    | Battery is exhausted.                            |
| [Battery depleted]   | The camera turns off after this message appears. |

Prepare your camera for use before you begin using it.

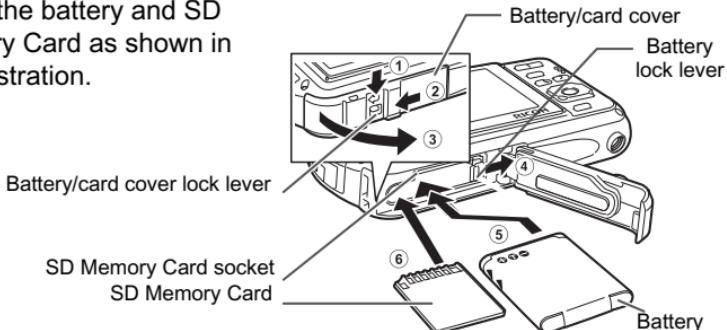
## ● Attaching the Strap

Attach the strap supplied with the camera as shown in the illustration.



## ● Installing the Battery and SD Memory Card

Install the battery and SD Memory Card as shown in the illustration.



\* The SD Memory Card is sold separately.

### The inside of the battery/card and terminal covers are not waterproof

- In locations where the camera is exposed to water or dirt such as underwater, at the beach, in a kitchen, etc., make sure that the battery/card and terminal cover lock levers are firmly locked so that they won't open unexpectedly. Do not open the covers in such locations.
- When removing the battery or card, avoid surroundings where the camera may be exposed to water or dirt, and make sure the camera, battery, card, and your hands are completely dry.

## ●Press the Power Switch

The camera turns on and is ready to take still pictures. Press the power switch again to turn the camera off.



## ●Make the Initial Settings

The [Language/言語] screen appears when the camera is turned on for the first time. Select the desired language and then set the date and time.

- ① Use the four-way controller ( $\blacktriangle \nabla \blackleftarrow \blackrightarrow$ ) to select the desired language.
- ② Press the **OK** button.  
The [Initial Setting] screen appears.

| Language/言語 |         |          |
|-------------|---------|----------|
| English     | 日本語     | Türkçe   |
| Français    | Dansk   | Ελληνικά |
| Deutsch     | Svenska | Русский  |
| Español     | Suomi   | ไทย      |
| Português   | Polski  | 한국어      |
| Italiano    | Čeština | 中文繁體     |
| Nederlands  | Magyar  | 中文简体     |

[MENU] Cancel

OK OK

### Memo

If you accidentally select the wrong language and press the **OK** button, press the four-way controller ( $\blackrightarrow$ ), use the four-way controller ( $\blacktriangle \nabla \blackleftarrow \blackrightarrow$ ) to select the desired language, and then press the **OK** button. The [Initial Setting] screen appears in the selected language.

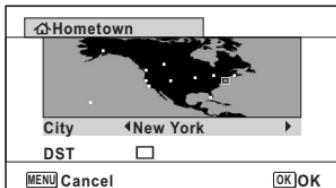
| Initial Setting   |                            |
|-------------------|----------------------------|
| Language/言語       | English $\blackrightarrow$ |
| Hometown          | New York $\text{DOT}$      |
| Settings complete |                            |

[MENU] Cancel

③ Press the four-way controller (▼) to move the frame to [⌂ Hometown].

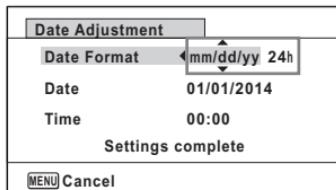


④ Press the four-way controller (►). The [⌂ Hometown] screen appears.  
⑤ Use the four-way controller (◀▶) to choose a city.



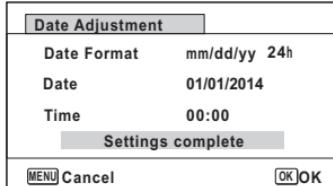
⑥ Press the four-way controller (▼) to move the frame to [DST] (Daylight Saving Time).  
⑦ Use the four-way controller (◀▶) to select  or  and press the **OK** button.  
The [Initial Setting] screen reappears.  
⑧ Press the four-way controller (▼) to select [Settings complete] and press the **OK** button.  
The [Date Adjustment] screen appears.

⑨ Press the four-way controller (►) to select [mm/dd/yy], then use the four-way controller (▲▼) to choose the date format.



⑩ Press the four-way controller (►) to select [24h], then use the four-way controller (▲▼) to select [24h] (24-hour display) or [12h] (12-hour display).

- ⑪ Press the four-way controller (▶), then press the four-way controller (▼) to move the frame to [Date].
- ⑫ Press the four-way controller (▶) to select [01] (month), [01] (day) or [2014] (year), then use the four-way controller (▲ ▼) to set the current date and time.
- ⑬ Press the four-way controller (▶), then press the four-way controller (▼) to move the frame to [Time].
- ⑭ Set the time in the same manner as in ⑫. Then press the four-way controller (▶).
- ⑮ Press the four-way controller (▼) to select [Settings complete] and press the **OK** button.



## ●Formatting an SD Memory Card

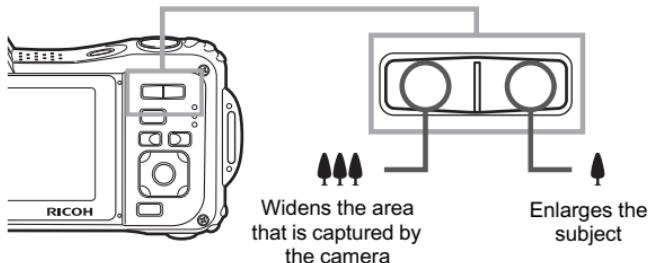
Use this camera to format (initialize) an SD Memory Card that is unused or has been used on another camera or digital device. Be aware that formatting will delete all the data stored in the SD Memory Card.

# 3

## Taking Pictures

Aim the camera at the subject, then press the shutter release button. The flash discharges automatically depending on the brightness.

- ① Frame the subject using the focus frame on the display.
- ② Press the button to change the captured area.



- ③ Press the shutter release button halfway.

The focus frame on the display turns green if the subject is in focus.

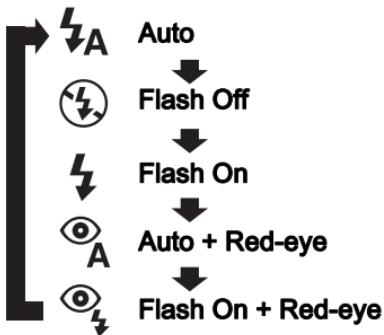
- ④ Press the shutter release button fully.

The picture is taken.



## ●Selecting the Flash Mode

Each time you press the four-way controller (◀), the flash mode switches between the following modes.

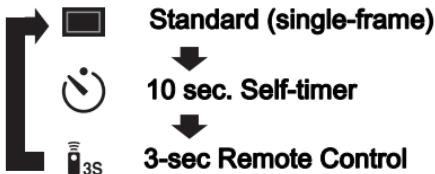


### Memo

- The functions available in Capture mode may be different.

## ●Selecting the Drive Mode

Each time you press the four-way controller (▲), the drive mode switches between the following modes.

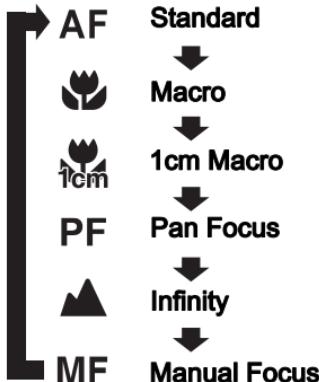


**Memo**

- The functions available in Capture mode may be different.
- You can select  (2 sec. Self-timer) by pressing the four-way controller (▼) and then (►) after selecting  (10 sec. Self-timer).
- You can select  (0-sec Remote Control) by pressing the four-way controller (▼) and then (►) after selecting  (3-sec Remote Control).

## ●Selecting the Focus Mode

Each time you press the four-way controller (►), the focus mode switches between the following modes.



## Selecting a Shooting Mode

You can choose the right mode for your particular situation from the Capture Mode Palette.

Press the four-way controller (▼).



Use the four-way controller (▲▼◀▶) to choose a shooting mode, then press the **OK** button.

### Memo

An explanation appears when you select the shooting mode.

## ●The monitor display in 16:9 aspect ratio

When [Recorded Pixels] is set to 10M 16:9 / 5M 16:9 / 4M 16:9 / 2M 16:9 in [ Rec. Mode], the aspect ratio of the image is 16:9 and the monitor display for recording and playback is as shown below.



You can play back the images taken on the display.

## ●Playing Back Images

- 1 Press the  button after taking a picture.

The image appears on the display.



### Memo

- To play back the previous or next image, press the four-way controller ( ).
- Pressing  on the / button during playback displays 6 thumbnail images. Pressing  again in 6-image display switches to 12-image display. Pressing  yet again switches to folder or calendar display.

## ● Deleting Images

### Deleting a Single Image

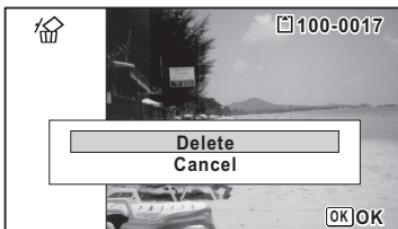
You can delete the currently displayed image.

① Play back the image you want to delete.

② Press the  button.

The confirmation screen appears.

③ Use the four-way controller ( $\blacktriangle$ ) to select [Delete].



④ Press the **OK** button.

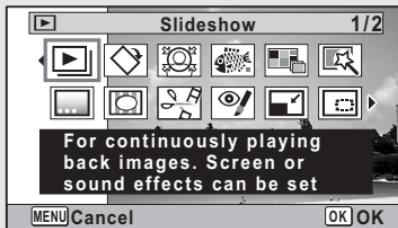
#### Memo

- You can delete several images selected from the 6- or 12-image display.
- You can delete all images at once.
- You can protect stored images from being accidentally deleted.

## Selecting a Playback Mode

You can choose the playback function you want to use with the Playback Mode Palette.

**Press the four-way controller (▼) while an image is displayed in playback mode.**

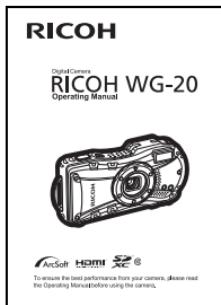


Use the four-way controller ( $\blacktriangle \blacktriangledown \blacktriangleleft \blacktriangleright$ ) to choose a playback mode, then press the **OK** button.

### Memo

An explanation appears when you select the playback mode.

For details about how to use the RICOH WG-20 or instructions on connecting the camera to a computer, refer to the operating manual. By visiting [www.ricoh-imaging.eu](http://www.ricoh-imaging.eu) you will be able to download the operating manual, to register your product, to apply for newsletters or to find the latest firmware information.



RICOH WG-20  
Operating Manual

## **Information for Users on Collection and Disposal of Old Equipment and Used Batteries**



### **1. In the European Union**

These symbols on the products, packaging and/or accompanying documents mean that used electrical and electronic equipment and batteries should not be mixed with general household waste.

Used electrical/electronic equipment and batteries must be treated separately and in accordance with legislation that requires proper treatment, recovery and recycling of these products.

By disposing of these products correctly you will help ensure that the waste undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health which could otherwise arise due to inappropriate waste handling.

If a chemical symbol is added beneath the symbol shown above, in accordance with the Battery Directive, this indicates that a heavy metal (Hg = Mercury, Cd = Cadmium, Pb = Lead) is present in the battery at a concentration above an applicable threshold specified in the Battery Directive.

For more information about collection and recycling of used products, please contact your local authorities, your waste disposal service or the point of sale where you purchased the products.

### **2. In other countries outside the EU**

These symbols are only valid in the European Union. If you wish to discard used products, please contact your local authorities or dealer and ask for the correct method of disposal.

For Switzerland: Used electrical/electronic equipment can be returned free of charge to the dealer, even when you don't purchase a new product. Further collection facilities are listed on the home page of [www.swico.ch](http://www.swico.ch) or [www.sens.ch](http://www.sens.ch).

**Memo**



**RICOH IMAGING  
COMPANY, LTD.**

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Tokyo 174-8639, JAPAN  
(<http://www.ricoh-imaging.co.jp>)

**RICOH IMAGING  
EUROPE S.A.S**

112 Quai de Bezons, B.P. 204,  
95106 Argenteuil Cedex, FRANCE  
(<http://www.ricoh-imaging.fr>)

**RICOH IMAGING  
DEUTSCHLAND GmbH**

Am Kaiserkai 1, 20457 Hamburg, GERMANY  
(<http://www.ricoh-imaging.de>)

**RICOH IMAGING  
UK LTD.**

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Berks SL3 8PN, U.K.  
(<http://www.ricoh-imaging.co.uk>)

**RICOH IMAGING  
AMERICAS CORPORATION**

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Denver, Colorado 80202, U.S.A.  
(<http://www.us.ricoh-imaging.com>)

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Ontario L5N 3S7, CANADA  
(<http://www.ricoh-imaging.ca>)

**RICOH IMAGING  
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Xu Hui District, Shanghai, 200032, CHINA  
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Specifications and external dimensions are subject to change without notice.

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